

Material Safety Data Sheet

Sodium meta-Silicate Nonahydrate

ACC# 21377

Section 1 - Chemical Product and Company Identification

MSDS Name: Sodium meta-Silicate Nonahydrate

Catalog Numbers: AC3253, S408-3, S408-500

Synonyms: Disodium metasilicate nonahydrate; Disodium trioxosilicate nonahydrate; Sodium metasilicate nonahydrate; Sodium silicate nonahydrate.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
13517-24-3	Sodium metasilicate nonahydrate	100	unlisted
6834-92-0	Sodium metasilicate anhydrous	-	229-912-9

Hazard Symbols: C

Risk Phrases: 34 37

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless or white solid. **Danger!** Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns.

Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns. May cause chemical conjunctivitis and corneal damage.

Skin: Causes skin burns. May cause skin rash (in milder cases), and cold and clammy skin with cyanosis or pale color.

Ingestion: May cause severe and permanent damage to the digestive tract. Causes gastrointestinal tract burns. May cause severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause perforation of the digestive tract. May cause systemic effects.

Inhalation: Causes chemical burns to the respiratory tract. Aspiration may lead to pulmonary edema. May cause systemic effects. Contains crystalline silica which may lead to respiratory abnormalities and silicosis.

Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Effects may be delayed. Chronic inhalation may cause lung damage, bronchitis, and silicosis. May decrease blood clotting. Prolonged exposure to respirable crystalline quartz may cause delayed lung injury/fibrosis (silicosis).

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: Get medical aid immediately. In case of contact, immediately wipe away excess material with a dry cloth while removing contaminated clothing and shoes. Under safety shower, wash affected areas thoroughly with large amounts of water, and soap if available, for at least 15 minutes. Discard or decontaminate clothing and shoes.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use extinguishing media appropriate to the surrounding fire. Substance is noncombustible.

Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire.

Flash Point: Not applicable.

Autoignition Temperature: Not applicable.

Explosion Limits, Lower:Not available.

Upper: Not available.

NFPA Rating: (estimated) Health: 3; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Keep container tightly closed. Do not get on skin or in eyes. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes.

Storage: Store in a cool, dry place. Keep container closed when not in use. Corrosives area.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sodium metasilicate nonahydrate	none listed	none listed	none listed
Sodium metasilicate anhydrous	none listed	none listed	none listed

OSHA Vacated PELs: Sodium metasilicate nonahydrate: No OSHA Vacated PELs are listed for this chemical. Sodium metasilicate anhydrous: No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to minimize contact with skin.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Appearance: colorless or white

Odor: none reported

pH: 13 @1% solution

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate:Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point:104-118 F

Decomposition Temperature:Not available.

Solubility: Very soluble in water

Specific Gravity/Density:1.646

Molecular Formula:Na₂SiO₃·9H₂O

Molecular Weight:284.20

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Acids.

Hazardous Decomposition Products: Irritating and toxic fumes and gases, silicon oxide, sodium oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 13517-24-3 unlisted.

CAS# 6834-92-0: VV9275000

LD50/LC50:

Not available.

Not available.

Carcinogenicity:

CAS# 13517-24-3:

IARC: IARC Group 3 - not classifiable (listed as Silica, amorphous). CAS# 6834-92-0: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: IARC has concluded there is inadequate evidence to describe amorphous silica as carcinogenic in animals or in humans. Crystalline silica has been designated as a probable human carcinogen.
Teratogenicity: No information available.
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: No information available.
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: No data available. No information available.
Environmental: Readily soluble in water therefore mobility is high.
Physical: No information available.
Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	No information available.				No information available.
Hazard Class:					
UN Number:					
Packing Group:					

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 13517-24-3 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

CAS# 6834-92-0 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 13517-24-3: acute, chronic. CAS # 6834-92-0: acute, chronic.

Section 313

No chemicals are reportable under Section 313.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 13517-24-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 6834-92-0 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

C

Risk Phrases:

R 34 Causes burns.

R 37 Irritating to respiratory system.

Safety Phrases:

S 13 Keep away from food, drink and animal feeding stuffs.

S 24/25 Avoid contact with skin and eyes.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 13517-24-3: 1

CAS# 6834-92-0: 1

Canada - DSL/NDSL

CAS# 6834-92-0 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of E.

Canadian Ingredient Disclosure List

CAS# 13517-24-3 (listed as Silica, amorphous) is listed on the Canadian Ingredient Disclosure List.

CAS# 6834-92-0 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

Section 16 - Additional Information

MSDS Creation Date: 9/02/1997

Revision #4 Date: 10/22/2001

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.